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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10-003,415	12/06/2001	Akinori Minami	Q67578	5431

7590 07/02/2003

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EXAMINER

COLE, ELIZABETH M

ART UNIT PAPER NUMBER

1771

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,415

Applicant(s)

MINAMI ET AL.

Examiner

Elizabeth M Cole

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groeger, U.S. Patent No. 5,885,696 in view of Haynes et al, U.S. Patent No. 5,962,112. Groeger discloses a bonded nonwoven fabric which comprises fibers which have a diameter of 1-10 microns, (see col. 4, lines 29-40), and a plurality of functional particles which are bonded within the nonwoven fabric. See col. 5, lines 38-57. The fabric may be formed by methods other than wet-laying. See col. 3, lines 24-48. Groeger differs from the claimed invention because Groeger does not disclose that the fibers have a length of no more than 3 microns, and does not disclose the method of making the nonwoven fabric wherein the fabric and the particles are mixed by means of a gas and then collected. However, Groeger does teach that any known form of dry-laying can be used. Haynes discloses that nonwoven webs which comprise fibers and particulate materials may be made by using the coform process or an airlaying process wherein fibers are separated from each other in an air supply and then collected and formed into a fabric. Haynes further teaches that such fabrics may comprise fibers having a length of about 3 mm. See col. 3, lines 37-48 and col. 4, lines 1-8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the methods and fiber lengths taught by Haynes in forming the nonwoven of Groeger. One of ordinary skill in the art would have been motivated to employ the methods and

fiber lengths of Haynes because Haynes discloses that all of these methods were known alternative means of forming nonwoven fabrics which comprised particles, and because Haynes teaches that fibers having a length of about 3 mm are particularly suitable for use when the airlaying process is employed. With regard to the limitation that the fibers have any adhered particles removed before forming the fabric, it would have been obvious to have cleaned the fibers or to have employed fibers having no foreign matter adhered to them in order to form a fabric having only those components which were desired in the fabric. With regard to the limitation that the fibers comprise composite fibers, Haynes teaches at col. 2, lines 23-45, that conjugate fibers such as island in the sea fibers are suitable for use in forming nonwoven fabrics. Therefore, it would have been obvious to one of ordinary skill in the art to have employed conjugate fibers in order to enhance the bonding of the web, while still maintaining good structural integrity of the fibers and the web.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (703) 308-0037. The examiner may be reached between 6:30 AM and 5:00 PM Monday through Thursday.


Mr. Terrel Morris, the examiner's supervisor, may be reached at (703) 308-2414.

Inquiries of a general nature may be directed to the Group Receptionist whose telephone number is (703) 308-0661.

The fax number for official faxes is (703) 872-9310. The fax number for official after final faxes is (703) 872-9311. The fax number for unofficial faxes is (703) 305-5436.

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Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c

June 25, 2003